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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,510	09/19/2003	Keith Caves	920476-94819	5824
23644 7590 05/04/2007 BARNES & THORNBURG LLP P.O. BOX 2786 CHICAGO, IL 60690-2786			EXAMINER NGUYEN, LONG P	
			ART UNIT 2616	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/665,510

Applicant(s)

CAVES, KEITH

Examiner

Long P. Nguyen

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply


A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☒ Claim(s) 1-3, 5, 15, 21, 25, 27, 30, 32 is/are objected to. 
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/19/2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____                                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____   | 6) <input type="checkbox"/> Other: ____                           |

## **DETAILED ACTION**

### ***Claim Objections***

Claims 1-3, 5, 15, 21, 25, 27, 30 and 32 are objected because "signalling" is not the correction spelling. Please change "signalling" to "signaling". Appropriate correction is needed.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10-32 are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) render indefiniteness because the preamble is not clearly defined. The examiner interprets the preamble of the claim ends with the phrase "...having, ...being, ...arranged".

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 26, 31 and 32 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter on the basis of nonfunctional descriptive material.

**Claims 26 and 31** recite, “in the form of software” in lines 1-2.

In claims 26 and 31, “in for of software” is computer program claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical “things.” They are neither computer components nor statutory processes, as they are not “acts” being performed. Such claimed computer programs (i.e. a set of executable instructions) do not define any structural and functional interrelationships between the computer program (i.e. a set of executable instructions) and other claimed elements of a computer which permit the computer program’s functionality to be realized. Thus, the claim is non-statutory.

**Claim 32** recites, “**A signal**” in line 1.

Claim 32 is “a signal”. It is not statutory since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored in a computer-readable medium, in a computer, on an electromagnetic carrier signal does not make it statutory.

### ***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-7 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3 of U.S. Patent No. 6,636,514.

Although the conflicting claims are not identical, they are not patentably distinct from each other because:

The application claim 1 is merely broaden the scope of the patented claim 1 by eliminating "between first and second narrowband networks across an ATM network...multiple calls include at least two calls having different", of the patented claim

1.

The application claim 2 merely broaden the scope of the patented claim 1 by eliminating "A method...signaling system type information is forward within", of the patented claim 1.

The application claim 3 merely broaden the scope of the patented claim 1 by eliminating "ATM network, wherein said multiple calls include at least two calls having different narrowband signaling system type...containing", of the patented claim 1.

The application claim 5 merely broaden the scope of the patented claim 2 by eliminating "an ATM network...for each of said narrowband calls, by forwarding a call connection signaling information...containing", of the patented claim 2. Like wise, the claim 7 is merely broaden the scope of the patented claim 3, respectively.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to eliminate limitations that are not unnecessary for their invention and to rephrase elements so long as the unit or element under different name would perform the same function. Also, it has been held that the omission of an element and its function is an obvious expedient if the remaining elements perform the same function as before. In re karlson, 136 USPQ 184 (CCPA). Also note Ex parte Rainu, 168 USPQ 375 (BD. App. 1969); Omission of a reference's element whose function is not needed would be obvious to one skilled in the art.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3; 5-7, 10-19, 21-26, 28-31 and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Wiley (US 2005/017499).

As for claim 1, Wiley shows transporting narrowband calls of multiple narrowband signaling type **[0073], 0027]** between first and second narrow band networks across a virtual circuit in an ATM network **[0073]**, wherein for each call connection within said circuit the call connection signaling information includes the narrowband signaling type **[0073]**.

As for claim 2, Wiley shows wherein the call connection signaling information is a data packet comprising a narrowband signaling type field **[0073], [0027], [0134]**.

As for claim 5, transporting narrowband calls of different signaling types between first and second narrow band networks across a network, the apparatus comprising: Means for forming a virtual circuit (**[0085], Interworking units, [0086] Identify VPI/VCI of the selected connection**); means for forming call connections within said circuit by receiving a call connection data packet **[0089]** comprising a narrowband signaling system type field indicating the narrowband signaling system type of said call **[0027], [0134]**.

As for claim 7, wherein said means is an interworking function **[0085]**.

As for claim 10, Wiley shows one or more narrowband calls having a given type of narrowband signaling ([0032], **DS1, [0077], IFW 212 support calls for the first broadband interface and the fourth broadband interface**), across a packet network [0038], by adapting at a sending side the one or more narrowband calls for the broadband network [0077], and sending an indication of the narrowband signaling type for use in reassembling the narrowband calls ([0073], [0052]).

As for claim 11, Wiley shows the packet network being a broadband network [0074] and the adapting comprising adapting into packets [0074].

As for claim 12, Wiley shows the packet network having virtual circuits [0074], and the adapting comprising adapting into packets of a given virtual circuit [0074].

As for claim 13, Wiley shows the indication being sent during set up of the virtual circuit [0073].

As for claim 14, Wiley shows the indication being carried by the same circuit of the packet network [0074], [0074].

As for claim 15, Wiley shows receiving one or more narrowband calls ([0032], **DS1, [0077], IFW 212 support calls for the first broadband interface and the fourth broadband interface**) carried by a packet network [0073], the packet network also being arranged to carry an indication of a narrowband signalling type of each of the one or more narrowband calls ([0073], [0052]), the method comprising receiving the indication of the narrowband signalling type [0073] and reassembling the one narrowband calls [0074], and associating a narrowband signalling type with each of the one or more narrowband calls using the received indication ([0074], [0077]).



As for claim 16, Wiley shows the packet network being a broadband network, and the reassembling comprising extracting from packets **[0061]**.

As for claim 17, Wiley shows the packet network having virtual circuits, and the reassembling comprising extracting from packets of a given virtual circuit (**[0059]**, **[0061]**).

As for claim 18, Wiley shows the indication being carried during set up of the virtual circuit in the packet network **[0059]**.

As for claim 19, Wiley shows the indication being carried by the same virtual circuit of the packet network **[0059]**.

As for claim 21 and 27, Wiley shows sending side interworking function (IWF) arranged to enable a packet network to carry one or more narrowband calls (**[0032]**, **DS1, [0077]**, **IFW 212 support calls for the first broadband interface and the fourth broadband interface**), by sending an indication of a type of narrowband signaling of each of the one or more narrowband calls to a receiving side interworking function **[0085]** to enable reassembly of the one or more narrowband calls (**[0073]**, **[0052]**).

As for claim 22, Wiley shows the sending side interworking function (IWF) arranged to adapt the one or more narrowband calls for sending over the packet network to the receiving side interworking function (**[0074]**, **[0077]**).

As for claim 23, Wiley shows the sending side interworking function (IWF), the packet network being a broadband network, the adapting comprising adapting into packets **[0074]**.

As for claim 24, Wiley shows the sending side interworking function (IWF), the packet network having virtual circuits, the adapting comprising adapting into a virtual circuit **[0073]**.

As for claim 25, Wiley shows the sending side interworking function (IWF) arranged to send the indication of type of narrowband signaling during set up of the virtual circuit **[0073]**.

As for claim 26 and 31, Wiley shows in the form of software **[0142]**

As for claim 28, Wiley shows the receiving side interworking function (IWF) the packet network being a broadband network, the reassembling comprising adapting from packets **(Col. 12 line 29-31, "Adapting" is interpret as "read, extract, get data signal")**.

As for claim 29, Wiley shows the receiving side interworking function (IWF) of claim 28, the packet network having virtual circuits, the reassembling comprising reassembling from a virtual circuit of the broadband network **(Col. 12 line 53-60)**.

As for claim 30, Wiley shows the receiving side interworking function (IWF) arranged to receive the indication of type of narrowband signaling during set up of the virtual circuit **(Col. 12 line 53-60)**.

As for claim 32, Wiley shows A signal in a packet network **[0073]**, relating to one or more narrowband calls carried by the packet network calls **([0032], DS1, [0077], IFW 212 support calls for the first broadband interface and the fourth broadband interface)**, the signal having an indication of a narrowband signaling type of each of the one or more narrowband calls **[0073]**.

Claim 3 is rejected under 35 U.S.C. 102(e) as being anticipated by Allen (US 6,169,735).

As for claim 3, Allen shows transporting narrowband calls of multiple narrowband signaling types between first and second narrow band networks across network; the method comprising: forming a virtual circuit (**Col. 9 line 49**); forming call connections within said circuit with a call connection signaling information data packet (**Col. 12 line 38-40**) comprising a narrowband signaling type field indicating the narrowband signaling type of said call (**Col. 12 line 6-24**).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wiley in view of Deschaine (US 5,881,059).

As for claim 20, Wiley shows one or more narrowband calls (**Abstract**) each having respective timeslots (**[0032], DS1, [0077], IFW 212 support calls for the first broadband interface and the fourth broadband interface, [0074] TDM frame**), and the reassembling being carried out using the timeslot indication **[0074]**. But do not

specifically shows the packet network having timeslots carrying indication of narrowband calls. Deschaine shows the packet network being arranged to carry an indication of the timeslots for each of the narrowband calls (**Col. 2 line 4-8, 17-20, Col. 3 line 66-67, time slot carrying common channel signaling or channel associated signaling**). However, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the signaling setup of Wiley with the timeslot of Deschaine in order to utilize of network facility by concentrating subscriber traffic.

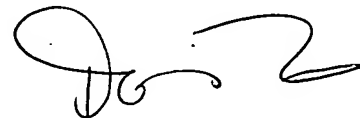
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Long P. Nguyen whose telephone number is (571)-272-9740. The examiner can normally be reached on Monday -Thursday 7:30 - 5:00 eastern alternate Friday 7:30-4:00 eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571-272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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